

Plasmacytoma

What is plasmacytoma?

Solitary plasmacytoma is a type of cancer of special cells called plasma cells. Plasma cells are a kind of white blood cell normally found in the bone marrow, which produce small molecules called antibodies that help to fight infection. Bone marrow is the soft substance found in the centre of larger bones; its main function is to make new blood cells.

Solitary plasmacytoma is closely related to myeloma, which is another type of cancer of the plasma cells. In myeloma the tumour is spread throughout the marrow in different bones, but in solitary plasmacytoma the tumour is localised to one part of the body. It usually occurs in the bone (where it is called a solitary plasmacytoma of bone).

What causes solitary plasmacytoma?

Like myeloma, solitary plasmacytoma most commonly occurs in middle aged or elderly people. These diseases are not found in childhood or adolescence and are, in fact, very rare under the age of 30. The exact cause or causes of solitary plasmacytoma are unknown. Patients with solitary plasmacytoma may develop myeloma at a later time. There is a significantly smaller risk of the disease progressing to a form of myeloma when the plasmacytoma is outside the bone (extramedullary).

What are the signs and symptoms?

The most common sites for plasmacytoma of bone are the spine and the long bones of the arms and legs. When plasmacytoma occurs in bone, the first symptoms patients notice are usually pain and tenderness in the affected bone.

The most common site for plasmacytoma arising outside the bone marrow is in the tonsils or at the back of the nose, but it can also occur in other sites, such as the digestive system, the nervous system, bladder, thyroid gland (in the neck), breasts, testicles, salivary glands and lymph nodes (glands).

With extramedullary plasmacytoma, the symptoms will depend on the particular site; for example, you may experience difficulty with swallowing if the plasmacytoma is found in the upper part of the digestive system.

How is plasmacytoma diagnosed?

The most important need is for careful investigation to confirm that there is only one plasmacytoma present i.e. that this really is solitary plasmacytoma and not myeloma. Special X-ray examinations and possibly a bone scan will be required.

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A bone marrow sample (biopsy) will normally be required to confirm that there is no evidence of abnormal plasma cells in the marrow. This involves obtaining a small amount of marrow from inside the bone with a needle, and a sample from the bone itself. These show whether the number and / or type of cells present are abnormal. The samples are usually obtained from the back of the hipbone. The procedure causes some discomfort but does not take very long and is usually carried out with sedation as well as local anaesthetic.

If the plasmacytoma is outside the bone the laboratory tests will again be similar to those for myeloma but special X-ray investigations may be necessary to determine the exact boundaries of the plasmacytoma before radiotherapy can be given. Like myeloma, solitary plasmacytomas produce an abnormal protein called paraprotein. This paraprotein can be measured in a blood test, and the level of this protein can be used to check on the success of treatment and to screen for any reappearance of the disease.

What is the treatment?

The aim of treatment in plasmacytoma is to eliminate the disease. The treatment that is used most commonly for both types of plasmacytoma is radiotherapy. This involves focusing radiation (similar to X-rays) on the plasmacytoma to kill the malignant cells.

Extramedullary plasmacytomas (i.e. outside the bone) tend to show a better response to treatment, and it is usually possible to eradicate the disease using localised radiotherapy. Surgery to remove an extramedullary plasmacytoma is also an option in some patients. The most common treatment for solitary plasmacytoma in bone is also local radiotherapy, and most cases respond well. In both kinds of plasmacytoma, chemotherapy is not normally required, unless other symptoms appear that suggest the plasmacytoma is becoming more active.

What happens after treatment?

After plasmacytoma has been treated, there is a possibility that it might return, possibly in a different part of the body. For this reason patients are often monitored after treatment by blood tests to measure the paraprotein level. This return is more likely in solitary plasmacytoma of bone, but extramedullary plasmacytoma may also return in up to a quarter of patients.

Progression to myeloma is also a possibility. If this happens then chemotherapy or a similar treatment will be required. Progression to myeloma is rare in extramedullary plasmacytoma.

Plasmacytoma and myeloma

Both plasmacytoma and myeloma are cancers of plasma cells. As mentioned, solitary plasmacytoma may progress into myeloma in a small proportion of patients. Conversely patients with myeloma may rarely develop an extramedullary plasmacytoma, in other words a localised collection of malignant plasma cells outside the bone marrow. In these cases, the plasmacytoma may need to be treated separately from the myeloma; for example, radiotherapy or surgical removal may be used to treat the plasmacytoma

About this Infosheet

The information in this Infosheet is not meant to replace the advice of your medical team. They are the people to ask if you have questions about your individual situation. All Myeloma UK's publications are extensively reviewed by patients and healthcare professionals prior to publication.

Other information available from Myeloma UK

Myeloma UK has a range of Essential Guides, Infoguides and Infosheets available, covering many areas of myeloma, its treatment and management. To order your free copies, contact the **Myeloma Infoline** on **0800 980 3332**. This information is also available 24/7 on our website at **www.myeloma.org.uk**.

If you would like to talk to someone about any aspect of myeloma, its treatment and management, call the **Myeloma Infoline** on **0800 980 3332**. Your call will be answered by Myeloma Nurse Specialists who are supported by medical and scientific advisors. The Myeloma Infoline is open from Monday to Friday, 9am to 5pm, and is free to phone from anywhere in the UK. From outside the UK, call +44 131 557 3332 (charged at normal rate).

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